

entitled to little weight. The Examiner has, however, indicated that supporting documentation from a skilled artisan would be given credence in support of the applicant's position. This being the case, additional information has been obtained from an independent source to more definitively compare and contrast the poly(diethylene glycol) adipate of the cited references, also known as PGA, and poly(1,4-butanediol) adipate of the applicant's claims, known as PTMA.

An inquiry was made to the customer service department of Chemical Abstracts, a well recognized authority in such matters, for their opinion on these compounds. In answer to that inquiry, a response was received by telefax letter dated January 4, 2000 from Chemical Abstracts' editor David W. Weisgerber, a copy of which is attached as Exhibit A.

Exhibit A characterizes the two compounds as being totally separate and distinct, noting different formulas and structures (diethylene glycol possesses an ether linkage not present in the 1,4 butanediol-based polymer) and separate CAS Registration and Numbers (9010-89-3 for PGA and 25103-87-1 for PTMA). The number for PTMA has also been used by the applicant to identify the preferred compound of the present invention at page 9, line 2 of applicant's specification. Individual separate treatment also is afforded to the two in the EPA Toxic Substances Control Act (TSCA) according to Exhibit A.

In view of the above, the applicant again submits that important differences exist between PGA compound of the cited

references and the PTMA of the present claims that should not be ignored. None of the references known to the applicant recognize the distinction and particular attendant advantages to be gained by the use of PTMA at all nor do they recognize the superior mechanical properties achieved (particularly elongation) with reduced energy binders which utilize higher molecular weight PTMA that have been discovered by the present inventor.

Teachings of the additional secondary references have been reviewed and are believed different and probably moot in view of the basic differences believed to exist with regard to the primary references. For example, the use of dicyandiamide (4%) as a reinforcing agent in Fleming '315 is clearly different from its use as a burn rate suppressant at 2% in applicant's formula (claim 24).

In view of these and previous remarks, and the supporting exhibit document, the applicant believes that no prima facie case of obviousness can be sustained against the present pending claims based on the cited references. Accordingly, the Examiner is requested to reconsider his position in view of the new materials presented here and in conjunction with reasons previously presented, withdraw the present rejection and allow the claims.

If the Examiner agrees, but certain minor issues with regard to claim language or the like remain which, in the Examiner's opinion, can be resolved by telephone interview, he is invited to

contact the undersigned at his convenience to discuss such matters in an effort to expedite prosecution of this application.

Respectfully Submitted,

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CERTIFICATE OF FACSIMILE TRANSMISSION

I hereby certify that the foregoing Amendment in response to the Official Action dated November 12, 1999 in application Serial No. 09/088,163, filed on June 1, 1998, of John R. Moser, Jr., entitled "REDUCED ENERGY BINDER FOR ENERGETIC COMPOSITIONS", and a transmittal letter are being sent by facsimile transmission to: The Commissioner of Patents and Trademarks, Washington, D.C. 20231, on January 11, 2000.



Barbara L. Davis
On Behalf of C. G. Mersereau
Attorney for Applicant

Date of Signature: January 11, 2000